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PUBLIC LANDS

BUREAU OF LAND MANAGEMENT

Central file



OUR PUBLIC LANDS . . .



"Conservation is a state of harmony between men and land. By land is meant all of the things on, over, or in the earth. Harmony with land is like harmony with a friend; you cannot cherish his right hand and chop off his left. That is to say, you cannot love game and hate predators; you cannot conserve the waters and waste the range; you cannot build the forest and mine the farm. The land is one organism. Its parts, like our own parts, compete with each other and cooperate with each other. The competitions are as much a part of the inner workings as the cooperations. You can regulate them—cautiously—but not abolish them."

(From "Round River—From the Journals of Aldo Leopold," edited by Luna B. Leopold, Oxford University Press, 1953.)

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COVER

From out of the public domain have been carved many of the Nation's great National Parks. One of these is Mt. McKinley National Park in Alaska. The cover picture shows a BLM survey team and their trusted Huskies as they race for civilization ahead of melting snows and rushing streams after having finished the survey of the Park boundary. For more about this historic and difficult survey see page 4.

WHAT ABOUT LAND LOCATORS?

Every day scores of people ask the Bureau of Land Management about so-called land locators and filing services.

Land locators and filing services are people or businessmen who perform various services for public land applicants for a fee. None of these people or businesses is licensed or regulated by the Federal Government. Land locators often perform such jobs as examining the status of lands on the public land records, inspecting the character of public lands on the ground, filling out application blanks, or preparing supplementary information that may be required with an application for public lands.

The Government does not require anyone to hire a land locator or a filing service. All that is necessary is that the applicant comply with the laws and regulations and submit a proper application.

Whether a person wishes to hire a land locator or filing service to assist him in finding a suitable tract of vacant public land, and in preparing an application, is strictly a matter of choice for the individual.

The Bureau of Land Management neither encourages or discourages the use of such services, and BLM cannot furnish the names or addresses of any people or firms doing this kind of work. However, anyone who is thinking about hiring a land locator or filing service should make absolutely sure he is dealing with a reputable organization. Above all, anyone who employs a land locator should find out exactly what services the locator will do in exchange for his fee—sometimes people have paid exorbitant sums for the doing of something which they could have done themselves at a nominal cost.

The regulations usually require that an applicant be personally acquainted with the land sought. If a locator prepares an application for your signature without first taking you to the land, and identifying it from survey markers, you should hesitate to sign the application.

All applications received by the Bureau of Land Management are considered on their own merits. No one would receive any kind of special treatment or consideration simply because he had filed his application through a land locator. All BLM information, data, records, maps, and other materials which are available to land locators and filing services, are also available to anyone who is interested in filing an application. Land locators receive no special or "inside" information that is not available to anyone else.

Though some land locators are completely honest businessmen who perform services for the public, some other land locators and filing services have engaged in land promotional schemes that, while staying just within the letter of the law, border on unethical or fraudulent practices. When in doubt, an applicant should contact the local Better Business Bureau or real estate regulatory agency and obtain their opinion.

In general, most locator services complete their contract with an applicant when he "receives the official receipt from the Land Office."

Some people have mistakenly thought that this receipt meant their application had been approved. The Land Office receipt is not an approval of the application or a permit to occupy or use the land. The receipt is only an acknowledgment that the application and service fees have been received by BLM and are now on file. The receipt in no way implies that an application will eventually be approved.

In the real estate business realtors do not usually earn their fee until the final sale has been completed. Up until that time, a person only makes a deposit of "earnest" money to show his good faith. If the deal later fails, through no fault of the prospective buyer, the realtor will return the money deposited. People doing business with land locators or filing services would do well to obtain similar agreements. This would mean that a person would not lose his money if his application is later denied. Such arrangements, of course, would have to be worked out directly with the locator or filing service.

Anyone who is planning on filing an application with the Bureau of Land Management, should, of course, fully inform himself about what it is necessary for him to do. He should also find out how much the Government will charge for filing the application, and also how much the land or resources would cost if he dealt directly with the Government. In general, the service fee for filing an application with BLM is \$10.

As far as filling out an application is concerned, BLM employees will be happy to assist anyone by answering questions or furnishing information, either in person or by mail.

Only if people are fully informed about their rights and about the requirements of the law and the regulations can the public be sure their interests are fully protected—and only in that way can the Bureau of Land Management effectively perform its public service responsibility.

End



MAJESTIC MT. MCKINLEY provides breathtaking backdrop for the BLM survey team that marked boundary of Mt. McKinley National Park

ADVENTURE AT DENALI

by LEONARD M. BERLIN, Area Cadastral Engineer, Portland, Oregon, BLM

Note: Denali is the old Indian name for Alaska's 20,320-foot Mt. McKinley—the highest mountain in North America. Denali means "The High One."

Now they call it adventure. In 1936 we called it a job when we volunteered for winter surveying around Alaska's Mount McKinley.

A Presidential order in 1917 had set aside the tallest mountain peak in North America and 2 million acres surrounding it for a national park, but the northwesterly and southwesterly boundaries—the most inaccessible and hazardous ones—lay still unmapped.

With all the funds the Bureau of Land Management could muster, Floyd Betts and I began preparations for getting into this timbered wilderness to take the boundary line measurements and set permanent markers of concrete-filled iron posts.

We had already taken care of the park's southern border about 3 years before. That was done with a large party during the summer. But the boundaries to the north and west, with its bridgeless rivers, tundra, and muskeg flats, demanded wintertime ice for overland hiking. Even if the

Government had asked us, we'd have preferred the cold to the warm weather with its unsprayed mosquito beds.

When studying applications of veterans of previous survey trips in the Northland, we looked for men who could handle snowshoes and themselves in subzero temperatures. The challenge was more than physical. Human qualities of cooperation and initiative were essential if we were to overcome our ever-present shortages.

Not included in our budget were salaries for a medic, a cook, or a camp flunkey. We were a crew of seven. Of necessity we were versatile.

Above all, an optimistic temperament was desirable, which is why Ken Nelson was first on our list. He could find humor in any waterloo. When there was a temporary drop in morale he would remind us how really lucky we were.

There was nothing in our supply kit that would be more useful than his ability to laugh affectionately at the world and its inhabitants, and particularly at himself.

We found that we had also used good judgment when we selected quiet, conscientious Larry Dat

phany. With grimness of purpose, he worked with his hands instead of his mouth. As a matter of fact Ken told us he had shared the same tent with Larry for 6 weeks before he heard him say a word. Then out came the astounding utterance: "The river's still going by."

Larry was also a practical fellow. In a Fairbanks hotel after our trip, it was Larry who said: "I've rented this bathroom, I'm going to get my money's worth." Whereupon he proceeded to take seven baths in one day.

Having spent much time with the Bureau's surveying parties, Herbert C. Torgerson's position was firmly established. He was head chainman. He was a burly, thick-chested sourdough, possessed with fantastic endurance. To be his assistant we were able to get another woodsman, W. C. Conover, whose chaining ability was supplemented by an extraordinary "axe aim."

No little of the success of our expedition was attributable to Floyd himself, the dean of Alaskan surveyors. He had more service than any of us. Indeed he taught us more practical things than we could have learned from shelves of books.

Grant Pearson was loaned to us by the Park Service. No stranger in this region, he had been with the first party to scale both the north and south peaks of Mt. McKinley. He was now marking the boundary of the great national park, of which he was later to become such a successful superintendent.

On the trail Pearson's lead dog, knowing the minute any other Malemute went on strike, would snap his jaws and snarl until the lagging canine resumed his share of the load.

With his near-wild charges, Pearson never failed to let them know who was boss. A Siberian husky held his head high with conscious dignity.

"That's 'Speedy'." Grant said. "He's my partner."

Floyd said to me, "Hold out a dried fish for Speedy, so I can take a picture."

"And what if I lose my hand?"

"Oh, you won't lose more than a coupla fingers," Pearson reassured me.

Having no stand-in, I declined the spotlight and continued with my anatomy intact.

After pulling a sled all day, our animals were tied up beyond paw's length of one another. We did not have time to go to a dog fight. And much less a dog hunt for the restless adventurers who would wander off on side trips.

The huskies were well named when it came to combating howling blizzards. Leashed outside camp, they suffered no harm in the foulest weather.

It is not their heredity that makes these dogs occasionally ferocious, but their environment. If they suffer prolonged exposure, they behave like wolves, but if they are taken into the Alaskans' home as pets, they become excellent watch dogs.

One problem was not ours; to unsnarl our hus-



SURVEYORS pose for a group picture before moving on through the icy wilderness. Left to right: Torgerson, Conover, Pearson, Betts, Berlin, Nelson, and Dauphany.

kies from an oncoming dog team. We did not meet man or beast on the entire trip.

The concrete-filled iron posts weigh more than $\frac{3}{4}$ ton. But they were the reason for our expedition, so they had to go with us. They certainly limited the rest of our supplies and gear, all of which had to be transported by dog sled.

No heavy duty trucks were going to pull warm house trailers for us. Nor was there to be an airlift to bring us fresh food or clean clothes. We all agreed to take only one change of clothes, and from the looks of us at the end of the trip, no one cheated, not even with so much as an extra bar of soap.

Starting from the skin outward, we wore wool underwear, shirt, pants, socks, the footgear shoe pacs, and switched to fur cap, parka, mukluks and gloves. All of these were top quality in spite of the budget. And we each had a pair of the best snowshoes made.

Our pockets filled with roll-your-owns, we contented ourselves with the knowledge that we had good eiderdown sleeping bags and sturdy canvas tents.

(Continued on page 12)

TEMPORARY CAMPS were moved along the survey line. New winter snow half-hides the sled in the left foreground.



ALASKA'S MINERAL RESOURCES

by DAN JONES, Valuation Engineer (Mining), BLM

Alaska's mineral resources are intimately associated with its geography, geology, and topography. Geographically, Alaska lies partially in the Temperate Zone and partially in the Arctic Zone. It is the largest peninsula in North America.

Because of its geographical location, its climate varies in the extremes. In the far north, the summer is short but pleasant; precipitation is low. In the central part of Alaska, winter is severe, down in the minus 60's; summer is much warmer—temperatures as high as 100° F. have been recorded. Precipitation is extremely low.

Along the Bering Sea coast the summer is cool while winters are cold but not severe. The Aleutian Islands between the Bering Sea and Pacific Ocean show the conflict that exists between these two bodies of water. Born of volcanic nature, they are often obscured by heavy fogs. They have a mild but wet climate; are brilliantly green with vegetation and act as a barrier to the cold current in the Bering Sea from entering the warmer Pacific Ocean.

The Panhandle of Alaska, the archipelago and mainland of southeastern Alaska, has a mild summer and a mild winter with heavy precipitation during the fall and winter that is as much as 150 inches in the Ketchikan area.

Rocks found in Alaska date from the earliest epoch, Pre-Cambrian, to the most recent quaternary. Each epoch played its part in forming the present land. For instance, a unique formation of Jurassic time, some 130 million years ago, is the great coal-bearing series of northwestern Alaska. However, the Eocene period, approximately 50 million years ago, is the greatest coal-making period of Alaska's history, as was the Carboniferous the coal-making period of the Appalachians.

Prior to this period, however, was that age when the metalliferous veins were injected into the older rocks. This occurred during the Upper Cretaceous period (some 100 million years ago) and in certain localities up into Tertiary times. The creation of the gold-bearing quartz veins occurred during these periods as well as copper deposits

throughout Alaska and the tin deposits of the Seward Peninsula. In many cases these veins were to furnish the substance for placer deposits.

Recent geology was affected by the glaciers formed locally throughout the ranges of Alaska. Post-glacial deposits contain most of the placer gold that has been mined in Alaska. The deeply buried gold deposits of Fairbanks and Nome, however, are much older.

The discovery of Alaska by Vitus Bering on July 16, 1741, marked the high point of Russian expansion. Undoubtedly, there were many motives that caused the Czars to extend their domains throughout the centuries, but the basic economic motive which led to the discovery of Alaska was the never ceasing search for new sources of fur. In contrast to the Spanish explorers, the search for minerals never played an important part in Russian explorations. Notwithstanding, several efforts were made to explore for minerals and develop them once they had been located.

However, it was not until 1849 that any scientific mineral exploration was made in Alaska. In that year, Peter Doroshin, a graduate of the Imperial Mining School at St. Petersburg, was sent by the Russian American Company to investigate the mineral resources of Russian America.

Doroshin spent 4 years prospecting along the Pacific seaboard of Alaska. He located many lignite coal deposits and on his recommendation a coal mine was opened at Port Graham, Cook Inlet. The mine operated for several years and supplied coal for local use.

Doroshin also found placer gold on the Kenai Peninsula and on the Russian River sluiced out several ounces of gold. The Russian American Company was discouraged with the results, however, and discontinued the exploration program. In 1863, the company decided to again find mineral wealth in the colony. This time they gave a lease to Ivan Furuhelm. This lease conveyed the rights of all minerals found in the colony to Furuhelm for a period of 7 years. The purchase of Alaska by the United States in 1867 terminated this lease.

Of interest is the fact that the one "mineral"

being shipped from Alaska during the Russian occupation was ice. Starting in 1852, ice was shipped from Sitka to San Francisco and later from a location near Kodiak. This trade continued up to the time of the transfer of Alaska to the United States.

Although certain economic reasons played the important role in the initial exploration of Alaska, it was a long time after its discovery that its mineral wealth was brought to light. Until the discovery of gold near Sitka on Baronof Island, very little mineral exploration was carried on.

Several circumstances contributed to the exploration and development of Alaska's minerals. Among these was the discovery of gold in the Cassiar district in Northern British Columbia in 1871. Its importance to Alaskan mining was the influx of prospectors who scattered out along the coast of southeastern Alaska. Another was the discovery of gold quartz ore near Sitka in 1872. However, it was not until 1880 when Richard T. Harris and Joseph Juneau discovered placer gold in Silver Bow Basin at the head of Gold Creek near the present town of Juneau that serious interest took hold. In this area the most important event was the development of the Treadwell group of mines on Douglas Island. The original claim, the Paris lode, was sold by "French Pete", Joseph Pierre Erussard, to John Treadwell for \$5.

Treadwell was able to make this claim and adjacent ones into one of the world's richest mines. Actually, the average was low grade but the operation was able to make a profit. Production from the mine has been valued at over \$60 million.

The real event that set off all future development in Alaska mineral industries was the discovery of gold in the Klondike in 1896. From the thousands that rushed to make their fortune in this remote area in the Yukon territory, many who failed looked elsewhere; and of those some ventured into Alaska to discover new wealth. Their trails show one discovery after another followed by the usual rush. In 1898 it was Nome, followed by the rush in 1900; in 1902 it was Fairbanks and Ruby. Year after year some new discovery was made which was followed by the opening of mines.

Along with this feverish prospecting for placer gold, other minerals were uncovered. Between 1895 and 1910, the majority of the presently known mineral deposits of Alaska were discovered.

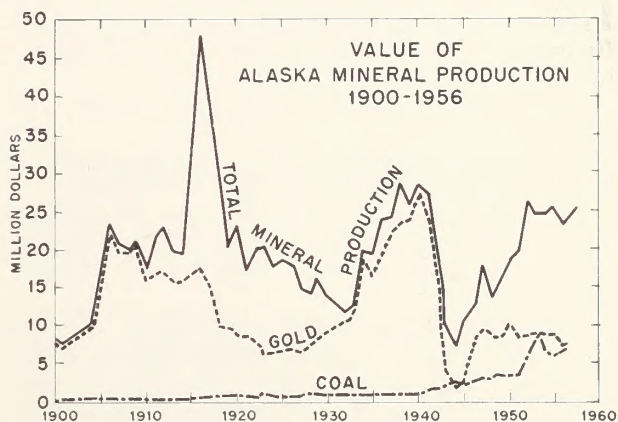
Many valuable minerals have been found in Alaska. Of the 33 metals and minerals now classified in the United States as strategic, 31 are known to occur in Alaska. Some of these mineral deposits, as well as others, have proved to be of value and have been mined. From them, and the gold, the value of minerals taken from Alaska from 1880 until today is estimated at \$1,183,706,000.

The strategic mineral resources of Alaska could be developed as a secure source of supply which

changing world conditions cannot interrupt. The most important of these is tin, followed in order of importance by titanium, nickel, cobalt, molybdenum, tungsten, chrome, manganese, mercury, copper, iron, antimony, and graphite.

Tin is found in placer concentrates in many locations throughout the territory. The apparent area of most importance, however, is the Seward Peninsula. Here up until a few years ago tin was mined both in the placer form and from hard rock. An estimated 3½ million pounds of tin have been produced from these deposits.

Titanium in the form of ilmenite is associated with the magnetite iron deposits of southeastern Alaska. High concentrations of ilmenite in an



igneous magma have also been reported in the Yakataga district.

Nickel, as found in the deposits of southeastern Alaska, is generally associated with copper, and occasionally cobalt.

Tungsten is also found throughout Alaska. Most of the tungsten shipped from Alaska is a byproduct of gold placer operations.

The known chromite deposits in Alaska are found near Seldovia in the Nuka Bay district, near Eklutna in the Turnagain Arm-Girdwood district, and at Red Bluff Bay in the Chichagof Island District. The deposit near Seldovia, Red Mountain, has a known tonnage of commercial grade chromite ore and is in production at the present time.

Increased interest in the base metals is evident. In Alaska active work has taken place on copper, nickel and iron deposits in southeastern Alaska, copper in the Copper River region, and mercury in the Kuskokwin region.

Known deposits of magnetite are found on Prince of Wales Island in the Ketchikan district—possible source of high-grade ore for export purposes. Other known important deposits are at Port Snettisham and Klukwan in the Juneau district.

The Klukwan deposit consists of a tremendous body of pyroxenite with disseminated magnetite

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HOW WE ACQUIRED OUR LANDED ESTATE—PART I

by KARL S. LANDSTROM, *Lands Officer, BLM*



THE Landed Estate of the American people is resource base on which the American economy functions. How it was acquired is the core of our history.

The national domain is all land, public and private.

The public domain is the remaining portion of lands originally acquired by our Government.

The public domain, at its broadest extent consisted of three-fourths of the continental United States and nearly all of Alaska, a total of 1,807 million acres.

The public domain was acquired by cessions from the Thirteen Original States, 1781 to 1802; the Louisiana Purchase, 1803; the Spanish Cession of Florida, 1819; the Oregon Compromise, 1846; the Mexican Cession, 1848; the Texas Purchase, 1850; and the Gadsden Purchase, 1807. Alaska was purchased from Russia in 1867.

The 13 original States made up the area of the United States at the close of the Revolutionary War. The boundaries of the new Republic were established by treaty with Great Britain. The western boundaries of the original States were ill defined. There had been overlapping and rival claims, based on conflicting crown grants.

Six of the States had clearly defined boundaries in the sense that they were bounded by the claims of other States to westward. The other seven—New York, Virginia, North Carolina, South Carolina, Georgia, Massachusetts, and Connecticut—held claims to “wilderness” to the west. The claims extended to the Mississippi River.

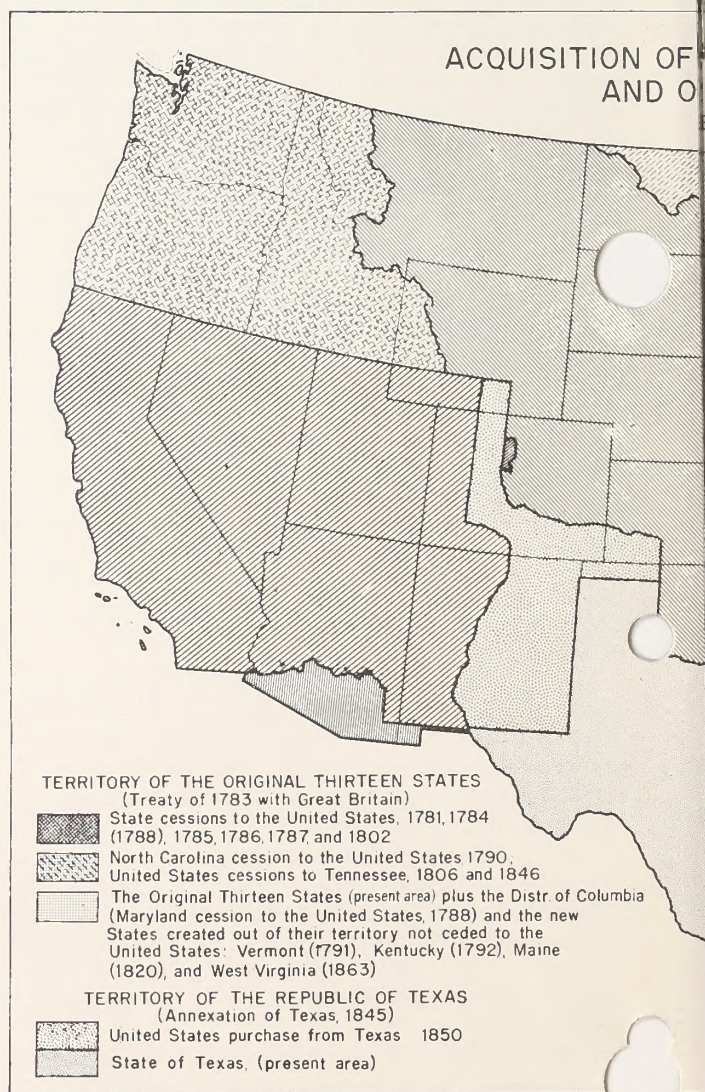
The attention of the Government of the newly formed Confederation was early drawn to the problem of the western land claims of the States. The States having no western claims contended that the western claims of the other States should be ceded to the Confederation.

Maryland contended that the unsettled domain to the west had been wrested by “common blood and treasury” and should be made their common property. Future unequal representation was feared as the larger States would grow with westward migration.

The Articles of Confederation had left the sale and disposition of western lands to the exclusive

control of the States owning them. Some States had opened land offices, made private grants, granted land bounties, or otherwise disposed of portions of their domain.

The Continental Congress in 1779 passed a com-



promise resolution recommending that the States withhold further grants of western lands for the duration of the war. Eight States voted for the resolution, and three voted against it.

New York tendered her claims to western land to the Congress without reservation in 1780 to alleviate dissatisfaction of the smaller States. The Congress adopted a resolution "earnestly" requesting other States to do the same.

New York had claimed an area of undefined and unsettled lands west of Pennsylvania and north of the Ohio River. These lands, ceded in 1781, are now in Erie County in Pennsylvania.

Virginia's western possessions north of the Ohio River were ceded in 1784. The present State of Kentucky was ceded directly to the State. Kentucky accordingly is one of the States that never contained public domain of the United States.

Massachusetts succeeded to the ownership of its vacant lands and became proprietor of unoccupied

lands in Maine. These lands were disposed of under State laws.

To the United States in 1785 were ceded claims to western lands that overlapped Virginia's claims in what is now Pennsylvania, Illinois, Wisconsin, and Michigan.

Maine took charge of her own lands and made no cession to the United States.

South Carolina in 1787 ceded a strip of land that now lies in the northern parts of Georgia, Alabama, and Mississippi.

North Carolina ceded her western lands, forming what is now the State of Tennessee, in 1790.

Connecticut's claim to western unoccupied lands, except to a tract known as the Western Reserve, in Ohio, was relinquished to the United States in 1880.

Georgia completed the cessions of the original States in 1802 by ceding lands that now are part of Alabama and Mississippi. Payment for this transfer was made by the United States of \$6,200,000, which was approximately 11 cents an acre.

Pennsylvania, Rhode Island, and Vermont made no cessions.

Delaware, Maryland, and New Jersey had no western lands to cede.

These cessions gave the United States title to 236,825,600 acres of land and water area, as computed in 1912 by a committee representing the General Land Office, Geological Survey, Bureau of Statistics, and Bureau of the Census. This was the nucleus of the land to be known as the public domain. The Government of the United States assumed the role of proprietor of these lands and trustee for the people.

By events listed thus far, citizens of the United States and the Nation by 1802 had acquired title to lands west of the Mississippi River. At that time, Florida was claimed by Spain, and Louisiana was claimed by France.

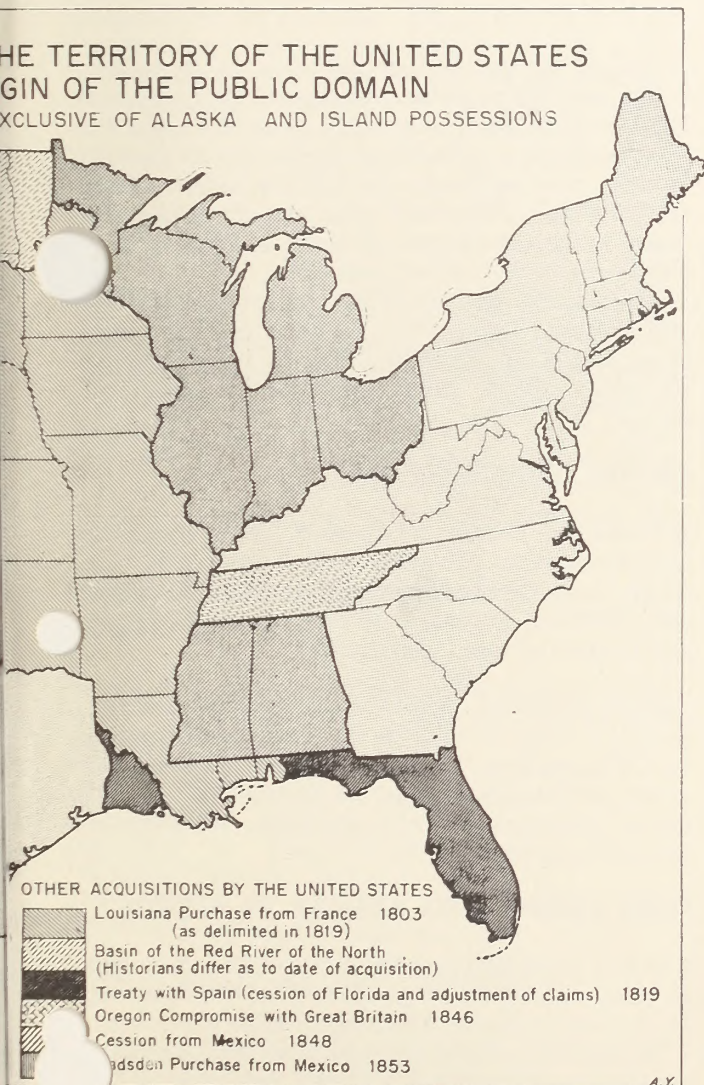
Louisiana, which included the Mississippi Valley, was early recognized as having geographic and economic importance on the American continent. The Ohio and Mississippi Rivers and their tributaries afforded an avenue to the sea, but the mouth of the Mississippi River was under the control of foreign powers.

France's claim to territory in the Mississippi Valley and along the Gulf of Mexico was based on LaSalle's voyage and proclamation of 1682. The eastward boundary of Louisiana thus claimed was the "River Palms." This is identified as a river in what is now Florida; it emptied into Palm Sound, now called Sarasota Bay.

France's Louisiana Territory was ceded to Spain in 1762. The area was described as "the whole country known under the name of Louisiana, together with New Orleans and the island on which that city stands."

By treaty in 1763, France and Spain ceded to Great Britain all of Louisiana east of the Mississippi. Twenty years later, in boundary settle-

(Continued on page 15)





RECORD RESOURCE PAYMENTS

Twenty-four States and Alaska shared in the largest collection of resource receipts from Federal lands in the Bureau of Land Management history. The money came from mineral leases, grazing leases, timber sales, and other resource sales.

United States Treasury checks totaling \$18,713,347.74 were presented by BLM officials to the States and Alaska as their share of resource development earnings. The amount sent to the States and Alaska last year amounted to about \$16.6 million.

The money distributed by BLM came from resource revenues during fiscal year 1958 which totaled more than \$127.4 million—an all time high. The previous record total was set just a year ago when gross revenues topped \$112.1 million.

The bulk of the payments to the States consisted of \$18,123,788.93 from bonuses, rentals, and royalties from Federal mineral leases (including oil and gas). The mineral payments came from revenues received from January 1 to June 30, 1958.

Since the States requested that their mineral payments be made semiannually, the \$18,123,788.93 covers only the half-year period from January 1 to June 30, 1958. Earlier this year the States received payments totaling \$16,256,489.86 covering the first half of the fiscal year. Altogether, the States and Alaska will have received \$34,380,278.79 during fiscal year 1958 from Federal mineral leasing activities. Total receipts from mineral leasing during the last half of the fiscal year were \$53,792,014.63, which added to those received during the first 6 months of the fiscal year, brought total mineral leasing receipts to \$95,369,101.95—

a record for the Bureau of Land Management.

The mineral payments represent 37½ percent of total receipts for the 6-month period, except for Alaska which now received 90 percent of mineral leasing revenues under the terms of a law passed in July 1957. The revenues come from mineral leases covering oil, gas, oil shale, potash, sodium sulphur, coal, and phosphate.

The remaining \$589,558.81 distributed to the States came from revenues for activities other than mineral leasing, including receipts from grazing on public lands, public land timber sales, and others.

ON THE BOOKSHELF

Oil and Gas Leasing on Federal Lands, by Lewis Edwin Hoffman (Denver: F. H. Gower, 2240 Mile High Center, first revision, May 1957), 597 pages. Mr. Hoffman is former Minerals Staff Officer of the Bureau of Land Management.

Land: the 1958 Yearbook of Agriculture contains a wide variety of articles that will be of interest to OPL readers. Copies of *Land* are available from the Superintendent of Documents, United States Government Printing Office, Washington 25, D. C., at \$2.25.

FIRST COMPETITIVE LEASING IN ALASKA

The first competitive bid sale for oil and gas leases in Alaska, held last September 3 in Washington, D. C., netted almost \$224,000, in high bonus bids.

At the first opening for Alaska oil and gas leases on a known structure, the Under Secretary of the

Interior presided over the opening of competitive bids for 26 leasing tracts on approximately 16,000 acres of public lands in the Gubik Gas Field of north-central Alaska. A summary of the bids opened shows total high bids of \$223,795.15 for the 26 parcels offered for lease.

Altogether nine companies or individuals submitted bids for 1 or more of the 26 parcels offered for leasing, on all of which there was at least 1 bid.

OFFSHORE LEASING IN FLORIDA

The Bureau of Land Management is inviting nominations for areas to be offered for oil and gas leasing off the coast of Florida. The area is in the Outer Continental Shelf in the Marquesas area in the Straits of Florida, and would be the first such leasing off the Florida Keys.

In a notice published in the Federal Register in November, BLM asked the oil and gas industry to nominate leasing blocks in the Outer Continental Shelf for subsequent competitive bidding and leasing. These OCS lands are located off the southwest tip of Florida. Action to solicit nominations for leasing is provided for by the regulations. Nominations by the oil and gas industry will assist the Department of the Interior in determining which specific leasing blocks or areas will be open for competitive leasing. Nominations may be made until February 1, 1959.

Nominated areas must be identified by leasing block numbers as shown in the official leasing map which has been prepared by the Bureau of Land Management. Each regular block contains 5,760 acres. Whole blocks or subdivisions of blocks may be nominated. There are 80 blocks.

After all of the nominations have been received, any area selected to be offered for competitive bidding will be published in the Federal Register and elsewhere. The publication notice of lease offers will give all of the details about the leases and information about how and when bids may be submitted.

AGRICULTURAL DICTIONARY IS IN FOUR LANGUAGES

A new Agricultural Dictionary has been prepared under the auspices of the Scientific Agriculture Society of Finland.

The author, Liisa Mali, spent considerable time with the BLM cadastral engineering staff in 1953 when she was preparing the dictionary. It is published by KUSTANNUSOSAKEYHTIO OTAVA, Helsinki, 1958.

The dictionary is in four languages—Finnish, Swedish, German, and English.

DESERT LAND POLICIES DESCRIBED

BLM policies regarding agriculture developments in arid and desert lands have been described in a

letter from BLM Director Edward Woolzley to Congressman Charles M. Teague of California.

In his letter to Congressman Teague, Director Woolzley noted the importance of the subject as it affects Government programs for the conservation and development of public lands and resources. At the present time the Bureau's Los Angeles Land Office has some 4,500 applications under the Desert Land Act involving more than 1.4 million acres. Over 1,500 of these applications have been filed since January 1, 1958.

Though it would be a good thing for the economy of the State if a large percentage of the lands in these applications could be developed under private initiative into a prosperous and permanent irrigated agriculture, current information indicates that a large percentage of the applications will have to be rejected because of poor soil and insufficient water. Each individual application, however, will be decided on its own merits, Director Woolzley said.

According to Director Woolzley, some of the applications have been filed after detailed personal study of the applicant, along with competent technical advice on the possibilities of agricultural development. In the majority of cases, however, the applicants have not obtained adequate knowledge about the basic soil and water requirements for the development of a successful irrigated farm. Large numbers of applications have been filed by "land locators" who, while charging a very large fee, have all too often failed to submit the minimum information required for a proper application and have applied for lands that could not possibly be agriculturally developed.

In his letter to Congressman Teague, Woolzley said that sometimes people apply for lands under the Desert Land Act when they are not really interested in farming at all. Some people have been led to believe that an entry under the Desert Land Act may be used as a device to purchase public lands without reclaiming them for the purpose of later subdividing and selling the lands at a substantial profit. This cannot legally be done since the development of irrigation water for farming is an absolute necessity before desert lands may be acquired under the Desert Land Act.

Many applicants are also unaware that conflicts with existing or proposed land uses may prevent the classification and opening of public lands under the Desert Land Act. Where there are competing or conflicting applications or uses for the same lands, the Bureau of Land Management must, of course, consider the relative merits of each of them from the standpoint of the public interest. Applications by a State are given a preference in certain circumstances over competing applications from private individuals.

Over a long period of time only about one-third of allowed desert land entries have actually been developed with a satisfactory water supply. Many

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Floyd constructed a cook stove that just fit the sled. It was built like a box, and could be turned upside down to hold our pans and dried foods. With this we wasted no space.

Having finished our preparations, we were ready to leave Anchorage in early February. The Alaska Railroad was taking us to McKinley Station, the end of civilization, the jumping-off place. Here we were met by several mushers, and their dogs, who hauled our equipment to a base camp, a trail which we made by snowshoeing for 5 days. This far into the hinterland, we piled everything on the snow and the responsibility of transport was in the hands of Pearson, who with one dog team would make whatever number of trips that were necessary to move from one camp to another.

His first job was to deposit a cache. With a sled full of groceries upon stilts, we hoped to keep wild animals, especially the wolverine, away from it until we could pick it up when we returned.

Camps were about 10 miles apart. We used two tents, one a dormitory for four fellows, and the other a combination bedroom, kitchen, and dining room. At the cook tent door we shoveled snow away from the ground to make room for Floyd's stove, which we vented through a hole in the top. Then in back of that we left the snow mound in the tent and piled spruce over it, first to make a table, second, a mattress for sleeping bags.

Each morning before 5 o'clock one of us would crawl out to start a fire. Believe me, we did not ask for volunteers for that job—we handled it on a rotational basis. An eerie feeling enveloped the lone riser as he heard snoring in the otherwise quiet cold and as he saw the hoar frost around the small breathing holes of the occupied sleeping bags.

The firemaker had to turn his attention quickly to melting enough snow for coffee. Breakfasting on hotcakes, bacon and powdered eggs, we now began to plot the day's course with abiding cheerfulness.

After a full morning of surveying, I remember we left our instruments for our "lunch hour," which we narrowed down to a few minutes, to munch leftover hotcakes, which would be frozen by that time. At this point we didn't bother to get a fire, we just rushed so that our hands wouldn't assume the same condition as the hotcakes. Besides, we weren't always close together at noon.

Dinner was more leisurely. We had firelight in the tent and could let the sun go down before we ate. It was a treat to take off the snowshoes, which we found ourselves wearing continuously, except when we were in camp.

Most cooking chores were passed around, but somehow the baking powder biscuits were always made by Floyd, who used his hand for a measuring

cup, and the top of the flour sack for a mixing bowl. With these, he created a culinary delight. Years later visiting Betts' home I saw his struggling with the biscuits, and innocently ask why she didn't turn the baking powder over to the man of the house. When she said, "Oh, can he cook?" the look on Floyd's face would have made any dough fall.

If we'd had menus printed, they'd have looked like this:

	Dried Apples	
Baked Beans	Dehydrated Potatoes	
Baking Powder Biscuits		
	Rice Pudding	
Coffee		Cocoa

Meat was conspicuously absent. But it was not an oversight. Confident that we would kill enough game for men and dogs, we planned our supply list to exclude it. (Where would we have put it with all those iron posts?) However, we didn't find so much as a rabbit or a spruce hen. Our main source of protein was dried beans. If we had known beforehand that we would be unable to live off the land the survey would probably not have been attempted.

If we had not our minds on keeping warm, and rushing with work to the point of daily exhaustion, we might have enjoyed the four high mountains in the area. We could've been envied for the view of Mt. McKinley from Wonder Lake, the best place for photographing the mighty peak that rises higher from its base than any other in world.

And we took the Northern Lights for granted—magnificent on cold clear nights!

Our big concern was getting a job done. With alternations of hope and despair, our work could be likened to that of the early pioneers, whose chief weapon against nature's restraining hand was iron resolve. We had fewer physical comforts than an old-time trapper.

For 7-day weeks we were alternately reconnaissance scouts, solar observers, chain gang, and post-hole diggers. That was our "system." And in just that order.

We did not move camp every day, but somebody was daily detailed with reconnaissance, which to us meant pushing forward with a trail the width of four snowshoes to accommodate the dogsled. Such exercise developed seven sets of strong leg muscles. The number of miles we were able to cover a day was in direct proportion to the softness of the snow.

Snaking around rough country, our trail must lead us to a campsite which would not only provide a supply of dry wood for fuel, but be near our actual survey line. We did not wish to spend much time commuting to the "office."

Many philosophers have extolled the virtues of taking a moment from a busy routine "to see where you are going." For us it was essential. It became my lot to take solar observations

determine the bearing of the line we were projecting and to see that we were on the right course.

For triangulation purposes, frequent ties were taken to beautiful Mt. Russell. If we had been sightseeing instead of site-setting we would have appreciated even more this pyramidal shaped mountain as she changed the color of her outer garments from early morning yellow to noon white to evening purple and coral. She is not as tall as mighty McKinley, but her features are sharper and better defined.

If at any time I found myself enamoured of the scenery and let my mind wander, Ken proceeded to remind me that the assembly line was before me with iron posts demanding attention.

Each post weighed 16 pounds. We never did figure the ratio of pressure between it and the 12 cubic feet of snow that had to be cleared away before its insertion into the frozen earth, because mathematics became superseded by language. Even Larry came out with a few words of profanity. Using our primitive chisel bar, driven with power from human dynamos, we found post-hole digging indeed tedious. The Bureau of Land Management did not help us either by stipulating that each post had to go into the ground an honest 28 inches.

When our workshop was a snowfield, we only had to concern ourselves with snowshoeing, but when our line crossed through timber, we had to get out the axes and slash a 10-foot passageway to facilitate surveying and make the boundary line easily identifiable. Many times we felt we had changed our profession and become lumberjacks.

If we thought we were through marking the boundary line by cutting timber and setting heavy posts every mile, we were too optimistic. Through the barren stretches at every high point cairns had to be erected by piling up rocks into a conical heap as thick as Torgerson and as tall as Ken. However, at the end of our line we could not help being impressed by the spectacle of our handiwork as we glanced back and saw miles of these rock cairns soldiering the icy wastes.

We put up a sign "National Park Boundary" and in small print Ken wrote, "If you've come this far, Brother, you may as well go in."

On the last day of our survey, I was operating the instruments. Ken and Floyd were about a mile up ahead of me, and had the one rifle we had in the party. I could see them but I couldn't call to them. Standing on the bank of the river, I heard a wild noise. Through my head raced thoughts of the big bear track I had seen that morning and of the knowledge that with spring at hand, bears would be coming out of winter hibernation and would be looking for any kind of live meat.

I was pretty lean at this time but I had no intention of tempting a hungry grizzly by remaining in the open. About 30 quick steps got me over



SURVEYED BOUNDARY is cut through forest, requiring skill with ax as well as transit. The transitman is barely visible in the center of the picture.

to the entrance of a cave where the noise seemed to originate.

With my double-bitted ax poised, I waited, feeling secure in my aim after practicing on tall spruces all winter.

Suddenly out bounded, not a bear, but a wolf, then another and another until four wolves lay dead at my feet.

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DENALI ADVENTURE

(Continued from page 13)

This was our first kill on the whole trip, but we'd have to be at the brink of starvation, before we'd resort to eating this kind of meat. Buoyed up by the thought of turning toward home, we had accelerated energy anyway.

I skinned the wolves and took care to leave the leg bones attached to collect the bounty. In that one operation I earned \$80, almost an entire month's salary.

May Day was celebrated with a "dance" of snowshoes—the beginning of the 180-mile trek which lay between us and the Alaska Railroad.

With unseasonably warm weather the previous week, the spring thaw started early, melting the ice surfaces of the intermediate rivers, and making their crossing more hazardous by the minute.

Our problem was now one of time. With our larder getting low, we had fear of being marooned with no food. Within the limits of our resources, we moved quickly.

In the lowlands, where we were by now, the snow was almost gone. Our sled was worthless. Even though we could have used it in the three mountain passes, through which we had to go, that was the lesser part of the trip, and we had to abandon it along with harness, stove, and other gear. In desperation we tore up the tents to make canvas packs for ourselves and dogs.

Once a great help to us, our huskies were now a hinderance. They had not minded pulling heavy sleds, but they were unaccustomed to carrying packs on their backs, even if it was their own food.

Each found himself not only shouldering a large improvised packboard, but also pulling a dog or two.

As if they were rebelling against the chain leash, they would plea for a rest often and hop on the back of our snowshoes, sending us down headfirst into the snow.

After a few tumbles, we would have welcomed an opportunity to buy the dogs just to get rid of them. Pearson reminded us, however, that he could get a lot of service out of them if we could just tolerate their company.

Nightfall found the dogs tied up and us bedded down in a sleeping bag and improvised wickiup. Now tentless and stoveless, our ingenuity was undergoing severe tests.

When we came to the first river that had its icy top crust melted, we realized we had no other choice but to wade through. Standing on the bank, Ken said:

"Well, fellows, we hired out as tough men, now let's prove it."

Whereupon, we trudged through not only that one, but many other rivers and glacial streams. Wading at times up to our armpits, we didn't know where the next step would take us.

After 8 days of this kind of travel, our cache

was a welcome sight. It had not been molested. We literally grabbed and gobbled. Ken and Floyd had a contest to see who could pile junk higher on hardtack.

Once again we felt comfortable and human. Then we knew we could make it back intact. In another 5 days our trip was history—one we did not wish to have repeat itself.

The report showed such inanimate facts as:

Completed 5 days ahead of schedule

At estimated cost

With no serious mishaps

But back of that account were hundreds of miles of grueling trails and stirring emotional experiences.

It was Sunday in Fairbanks. Someone asked me: "After you rest up, what are you going to do next?"

Well, I told Ken I'd meet him and we'd ship off on that Yukon trip tomorrow."

But that is another story—one in which museum pieces were made of our same snowshoes that treked the border of McKinley National Park.

End

ALASKA'S MINERAL RESOURCES

(Continued from page 7)

and has been traced for 2 miles along its strike and has a known width, in one place, of over 4,000 feet. The depth of the deposit is entirely unknown, and can only be determined by drilling. The deposit contains some concentrations or pockets of highgrade magnetite, but the deposit's greatest commercial value lies in possible local beneficiation and smelting with the use of low-cost electrical energy. The deposit may be a source of ore for a local iron and steel industry.

The Snettisham deposit is not as well exposed as the Klukwan deposit. Sampling indicates that this deposit contains titanium, which might be recovered as a byproduct from the smelting of the iron ore.

A deposit of commercial-grade uranium-bearing material was found in 1955 in an area near Kendrick Bay, on Prince of Wales Island. The ore is now being mined. After it is dug, it is shipped through Seattle to a mill near Spokane for processing. Other specimens of commercial grade materials have turned up.

Prospecting activities in the search for radioactive ores have continued throughout the past years. Uranium minerals have been identified at several localities in Alaska.

Today a new rush is on. This time instead of gold, it is oil, and this rush may lead to wealth that would eclipse that of the earlier years. Almost all the major oil companies have teams in Alaska in various stages of explorative work. Many leases have been issued and drilling is taking place. If large deposits of oil are finally developed and if the various handicaps can be overcome, expect

sive transportation, long distances from market, adverse weather conditions, etc., oil may well reverse Alaska's economy.

Statehood for Alaska will have a profound effect upon the development of this mineral wealth. A look at the balance sheet will show that there is a tremendous future in store for the mineral resources of Alaska. **End**

OUR LANDED ESTATE

(Continued from page 9)

ments at the close of the Revolutionary War, the United States took over from Great Britain all that part of the original Louisiana ceded to it by France.

Spain in 1800 ceded back to France the Louisiana Territory less the part east of the Mississippi and north of latitude 31°, which had been acquired by the United States in 1783 from Great Britain. Before that time, the ministers of the United States in Europe had been instructed to prevent, if possible, the return of Louisiana to Spain. France was urged to consent to the sale of the city and province of New Orleans to the United States. The urgency of purchase was heightened by the temporary closure of the port of New Orleans to the United States in October 1802.

President Thomas Jefferson, in December 1802, obtained the consent of the Congress to negotiate for the purchase of New Orleans from France. Negotiations were conducted by James Monroe and others. France agreed to the sale for a price of 80 million francs.

It is said that when Napoleon Bonaparte instructed his minister of treasury regarding the Louisiana sale he ventured the forecast that the country that would hold the Mississippi Valley would eventually become the most powerful country on earth.

The boundaries of Louisiana as purchased from France were indefinite. Definite boundaries were established later by a treaty with Spain and a series of treaties, concluded in 1871, with Great Britain.

The cost of 529,911,680 acres of land and water surface acquired in the Louisiana Purchase was \$23,213,568, or about 4 cents an acre.

(to be continued)

ACTIVE ACRES

(Continued from page 11)

entries that have actually been transferred to private ownership after a full water supply has been developed are not actually farmed. In a recent visit to 12 patented entries in southern California it was found that 7 were not then being farmed and only 2 were being farmed on a full-time basis. These facts clearly indicate the importance of proper land classification for agricultural entry, Director Woosley said.

COLOR FILM DESCRIBES BLM PROGRAMS

The vital importance and wide variety of BLM programs are shown in a new 16-mm., sound and color film produced by the Bureau of Land Management. The film is called "Our Public Lands." The 28-minute film was taken across much of the vast areas administered by BLM—from mineral leasing in the Outer Continental Shelf, through desert land development in the Southwest, to forest management in western Oregon and fire resource protection and development programs in Alaska.

The new film emphasizes the important role of Our Public Lands in the past, present, and future development of the Nation's land and resource base. It traces the history of Our Public Lands by showing how the public domain grew.

The film is cleared for public service television and is available free of charge to large or small groups. Schools, colleges, conservation organizations, and other interested groups may arrange a free-of-charge loan of the film or obtain additional information by writing the Director, Bureau of Land Management, U. S. Department of the Interior, Washington 25, D. C. **End**

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